buildings, or buildings which they purposely destroyed: they took columns with their Corinthian capitals, &c. and adapted them to the arrangement required for their own temples. In their subsequent works they did not, as we should have done, continue to copy and reproduce the models which were at first so convenient to them; but, applying to them their own peculiar feelings, they gradually departed from the original model, to such an extent at last, that but for the intermediate steps we should be unable to discover the least analogy between them. Yet by this process the capitals of their columns can be traced back to the Corinthian order, which they, in the first instance, found so abundantly for their use.

In the instance before us, who, at first sight, could see any connection between the egg-and-tongue moulding and the ceiling of the Hall of the Two Sisters of the Alhambra? Yet, by placing side by side the intermediate stages, we may be as certain of the process by which they arrived at it as if we saw them at work before our eyes. Look at a cornice very common on the earlier buildings of the Arabs. You will see that it resembles in all respects the egg-and-tongue moulding, save that what is here round in the Arabian cornice is straight. Some fresh mind at work upon it saw an opportunity for fresh beauty in doubling it, as you see here another in tripling it; and then there must have burst upon some other that this multiplication of a simple element was a mine of wealth to them. We now see this principle developing itself in the formation of pendentives the filling up of niche-heads and doorways.

It was reserved for the Moors to carry this principle to its utmost limit; and we see in the Alhambra capitals of columns, arches over large openings, and ultimately the ceilings of their halls were covered with the stalactite roofs, which are not more remarkable for their elegance and beauty than for their scientific construction.

The ceiling of the Hall of the Two Sisters is composed of 5,000 pieces, being combinations of the same seven, based upon three primary forms,—a right-angled triangle being the half of a square; a parallelogram, having one of its sides equal to the hypothenuse, and the other to one of the sides of the angle; and an isosceles triangle, also with sides, equal to the sides of the right angle; so that as all these seven pieces occupy the same space on plan, but are different in elevation and section, they may be used indifferently one against the other, and the most astounding varieties can be produced: in fact, they are infinite, like the combinations of the seven notes of the musical scale.

Similar progression may be seen in every architecture. Many of the types of Greek architecture may be seen in Egypt. The flutes on the Doric column were first simply corners cut off in the piers of the rock-cut temples of Egypt. They then became eight-sided, and so on, till some one must have suggested making the sides curve inwards; and lo! we have the flutes. A rude type of the honeysuckle ornament, so prevalent in Greek architecture, is seen on the Assyrian monuments discovered by Dr. Layard and M. Botta: in fact, any one so disposed, will find numberless instances of these progressions: but I have said enough to show that architecture, till now, has ever been progressive. What has been done in past ages may be done in this, if our minds are only so directed.

We have all the works of the past, as I said before, for our inheritance. We may use the principles and knowledge derivable from them, but may not parody the results of these principles. From the works of Egypt we may learn how to symbolise: from those of Greece we learn purity of form and grace of outline; from the Arabs and Indians, perfection of form, harmony of colouring, and more especially the conventionality of natural forms; from the Moors, in addition, the great powers of geometrical combinations, and the immense value of the repetition of the most simple elements, as producing grandeur and richness; and when fully impressed with this knowledge, have we not before us the whole range of Nature's works, furnishing us suggestions of endless variety? See what the Egyptians did with the lotus, the Greeks with the honeysuckle, the Romans with the acanthus, the mediæval artists with the trefoil, the maple, the vine, ivy, and oak. Have the plants and flowers of every clime been gathered together in vain for the architect? can they furnish him no hint for the development of new conventional forms?

There is but little hope that any but a slight modification can take place in the art of the present generation, but it is the bounden duty of all to help in the elevation of the future. We have movements going on around us to promote the knowledge, improve the morals, and preserve the health of our race. Philosophers measure the innermost recesses of the vault of heaven, or descend into the bowels of the earth for knowledge, which they disseminate by cheap literature to the homes of the humblest. Free-trade supplies food and raiment to all. The railway movement quadruples the power of locomotion. The sanitary movement seeks not only to prolong life, but to render that life a blessing rather than a curse. The movement in favour of the drainage and irrigation of the soil now dawning, promises to so far increase the productiveness of the country, by pouring on it the waste of towns, that what are now the luxuries only of the few will, hereafter, be daily supplied to the many. Shall we, then, be content to supply only the material and intellectual wants of man, neglecting that far happier portion of his nature, the sentiments? Shall there be no movement in favour of bringing art-knowledge within the reach of all? I would strongly urge, that there could be no more noble result springing out of the Great Exhibition than this; no more noble task for this society, which brought about the Great Exhibition, to set itself than this.

Every town should have its art-museum, every village its drawing-school: every parent should educate himself in art, as far as he can, and cause his children to be educated still further: it is as necessary for the refinement and the happiness of mankind to develope the innate poetry of his nature by the cultivation of the eye, as to develope his intellect by giving him the power of reading and writing. Do not say this is visionary or impossible: every movement now successful was once so regarded, was once but the philanthropic yearnings of the few.

The Government may, and ought to, assist in developing this movement: it should help with no niggard hand: a few thousands spent in forming art-museums, accessible to all, would save many thousands more from being spent in building gaols.

Although the evil passions lurking in the breast of man can never be eradicated, yet they may be subdued and charmed to slumber by the cultivation of his higher mental and sentient powers. Give a people healthy pleasures, and the tendency to crime must be diminished.

OWEN JONES.

THE SANITARY STATE OF THE METROPOLIS.

IT is gratifying to know that the House of Lords have pledged themselves to the cause of Sanitary Reform in the Metropolis, on the motion of Lord Shaftesbury, supported by a most able and unanswerable exposition of the horrors of life and death in London,—by resolving, "that the sanitary state of the metropolis requires the interposition of her Majesty's Government." And our gratification is not much diminished by the fact that this resolution was come to by the Lords in the face of rather a grumbling expatiation by the Premier himself on the difficulties in the way, combined with rather a lukewarm view of either the evils to be remedied or the benefits to be realised. His lordship looked not unlike a restive boy whose capital stood much in need of washing, obvious to every one but himself, and was advised by his parents to scrub it immediately, notwithstanding all his got up and fractious objections and excuses to the contrary. But that it is most devoutly to be wished that the head of the Government were as anxious to clear away all obstacles to the salubrification of the metropolis as he appears to be to exaggerate them, we are deeply conscious. This, however, the metropolitan public itself alone are likely to persuade him to be. His lordship, indeed, pointed to the apathy of those most interested as one of the very difficulties on which he delighted to expatiate. There is, unfortunately, but too much truth in this. The public, once fairly rid of one of the most salient of those dread evils under which they have been suffering,—namely, the pestilent cholera,—have sunk back into their usual apathy, and another visit of the same scourge alone, we fear, will rouse them to a sufficient amount of energy and determination to enable them to root out its abiding predisposing causes. That dreaded, yet it may be salutary, event, may be nearer than they imagine. *The pestilence has again broken out in the East precisely as it has done on previous occasions.* It is full time, therefore, that the metropolitan public were up and stirring. The gas of their graveyards, their cesspools, their sewers, is doing *its* work in preparation for the scene of horrors. Every year it is intensifying more and more, as every year its fruits are multiplying. The general mortality of the metropolis of late years has immensely increased, and we are fast retrograding to the state of things before the time of the great plague when the population of the metropolis would have actually become extinct in a brief series of years had it not been for constant replenishment from the provinces. Nay, the time has already come, according to statisticians, for "London, if not refreshed from the country, would be a desert in fifty years." Did we not say with truth, some time ago, that if ever Macaulay's civilised New Zealander stood on the ruins of London-bridge and beheld nought but a solitary, uninhabited, waste,—the poisonous filth from graveyards, cesspools, and stagnant sewers, with which the metropolitan site is saturated, must alone have done it all? The deaths of *the London born* already exceed their births. Their blood is poisoned. Their stamina is sinking. They are even dwarfed in stature and dimensions. And not all the healthier blood infused into London from the country can prevent its rapid decay unless the site be cleared of those abominations which breed disease and death and new abominations even in the midst of death to intensify the hideous fermentation of mortality.

The cesspool system alone, it has been estimated, yields a stagnant saturation equivalent to an exhaling surface or a lake 700 acres in extent, and constantly 6 inches deep, though weekly pouring 5,000 loads of poisonous filth into the Thames.

As for the grave-yards and vaults within the limits of the metropolis, 50,000 dead carcases are yearly cast into them to rot, in dense and crowded masses, both of the dead themselves and of the living,—masses of dead which, in perfect accordance with what we have repeatedly said, are now declared to diffuse around them putrefying matter enough to communicate "a putrefying process" to all who are exposed to it. Many of these sinks of corruption were chock full twenty years since, and ever since they have been, and still they continue—literally and emphatically—*overflowing*. Within the last single generation, of thirty years only, a million and a half of human bodies have rotted, steamed, and spread from these worse than cesspools, in ever-flowing streams and saturations of deadly vapours, gases, and fluids, throughout the ever-breathed air, and the ever-trodden site and soil, of the metropolis! Little wonder that the deaths of the London born so far exceed the births—that country blood alone keeps life in this dwarfed and dying carcase. Let emigration on the one hand, and repugnance or other preventive causes on the other, withdraw that stamina infusion, and what must be the inevitable consequence, even without the aid of positive pestilence?

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